

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
		MM-DD-YY	P. BRAVO

NOTES:

- 1 IDENTIFY IAW MPP-120
- 2 MATERIAL: 3K 2X2 TWILL CARBON FIBER PREPREG, AXIOM AX-5112T
- 3 MATERIAL: #120 E-GLASS EPOXY PREPREG WITH 48% RC
4. MANUFACTURE IAW MPP-145
- 5 PRIME PARTS WITH TWO COATS IAW MIL-PRF-85582C, TYPE 1, CLASS N
6. INSPECT DIAMETERS ON ALL HOLES
- 7 PART GEOMETRY AND HOLE LOCATION DIMENSIONS CONTROLLED BY CAD MODEL.
FORMAT FILE NAME AS:
"652.26XX(PART NUMBER) XXX(REVISION LEVEL) XXXXXXXXXXXX (PART DESCRIPTION) XX-XX-XX(DATE)"
8. INSPECT IAW XXXXX (TBD)
- 9 LAYER THICKNESS TO TRANSITION OVER 1.00-1.50 IN
- 10 CURED AT 250 °F WITH RAMP RATE OF 1-3 DEGREES PER MINUTE, HOLD AT 250 °F FOR 60 MINUTES
- 11 ZERO DEGREE WARP DIRECTION LISTED ON CORRESPONDING PART DRAWINGS
- 12 DELETED
- 13 MATERIAL: AR 4315HP ADHESIVE, RESINLAB L.L.C
- 14 INSTALL DOUBLER F/N 5-10 USING ADHESIVE F/N 11 CONCENTRIC TO FLANGE HOLES IN F/N 1 OR 2 AND .200" HOLES MATCH PUNCHED AND DRILLED PRIOR TO PRIMER DELTA 5.
- 15 MAX WEIGHT: TBD
- 16 MAX WEIGHT: TBD
- 17 APPLY PLY G1 ONLY WHERE SHOWN
- 18 APPLY PLY G2 ONLY WHERE SHOWN
- 19 APPLY MINIMUM 2.00 X 2.00 SQUARES AROUND HOLE LOCATIONS SHOWN. 2.00 WIDE STRIPS ALLOWED TO STRETCH BETWEEN HOLES THAT ARE LESS THEN 3.00 APART.
- 20 APPLY MINIMUM 3.00 X 3.00 SQUARES AROUND HOLE LOCATIONS SHOWN.

PR18

PROTOTYPE REVISIONS					
ZONE	REV.	DESCRIPTION	DATE	APPROVED	REVISED BY
	PR1	INITIAL RELEASE	6-5-18	P. BRAVO	
ALL	PR2	REVISED NOTES AND ALL VIEWS	1-24-19	P. BRAVO	
SHEET 1-4	PR3	REVISED NOTES AND VIEWS	2-5-19	P. PRAVO	
ALL	PR4	REVISED NOTES AND LAYUP TABLE, AND ADDED TOLERANCES	3-21-19	P. BRAVO	
SHEET 1-5	PR5	REVISED GEOMETRY ON 652.2612 AND 652.2613. REVISED NOTES, VIEWS, AND TOLERANCES	5-7-19	P. BRAVO	
SHEET 1-5	PR6	REVISED NOTES, BOM, AND DATUMS	7-25-19	P.BRAVO	
SHEET 1-2,5	PR7	REVISED TITLE, NOTES, BOM, AND DATUMS	8-6-19	P. BRAVO	
SHEET 1-2	PR8	REVISED NOTES, BOM, AND ADDED SHEET 2	9-9-19	P. BRAVO	
SHT: 3,6, & 7	PR9	CORRECTED HOLE CALLOUT ADDED DETAIL VIEW OF COVER FLANGE ADJUSTED TOLERANCE ON .07 LAYUP CALLOUT UPDATED DELTA 21	12-30-19	J.GARDINER	
SHT: 4,5, & 8	PR10	REVISED LAYUP THICKNESS , ADDED SHEET 8	3-19-20	J. GARDINER	E. ANDERSSON
SHT: 8	PR11	REVISED LAYUP ORIENTATION FOR LAMINATE 3	3-31-20	J.GARDINER	E.CAHILL
SHEET 4-7	PR12	REVISED POD AND COVER LAYUP	5-7-20	J. GARDINER	E. ANDERSSON
SHEET 8, 9	PR13	REVISED LAYUP TABLES	6-22-20	Z.MUTTER	N. RIEMENSCHNEIDER
SHEET 7	PR14	ADDED NOTES FOR CLARIFICATION	7/15/2020	Z.MUTTER	N. RIEMENSCHNEIDER
SHEET6: D3, C8	PR15	CREATED DETAIL VIEWS L, M, N-N REVISED COVER RETURN FLANGE LENGTH ON AFT EDGE	7-30-20	A. QUAN	Z. MUTTER
SHT: 1-2, 4-7, 10-11	PR16	REVISED BOM, NOTES, THICKNESS, TOLERANCES,ADDED SHEET 7-8	9-18-20	Z. MUTTER	E. ANDERSSON
BOM	PR17	REPLACED P/N'S FOR F/N'S 5-10	10-7-20	J. GARDIER	E.CAHILL
NOTES, SHT 1-2, 8, 10-11	PR18	REMOVED DELTA 12, ADDED NEXT ASSY, ADDED DOUBLER INSTALLATION VIEW, FIXED TOLERANCE TYPO,	10-28-20	J. GARDINER	E. ANDERSSON

For A

A/R	A/R	11	600.1005	ADHESIVE	13	
1		10	654.7025	RIGHT HAND 3RD DOUBLER (FWD)		
	1	9	654.7024	LEFT HAND 3RD DOUBLER (FWD)		
1		8	654.7023	RIGHT HAND 2ND DOUBLER (FWD)		
	1	7	654.7022	LEFT HAND 2ND DOUBLER (FWD)		
1		6	654.7021	RIGHT HAND 1ST DOUBLER (FWD)		
	1	5	654.7020	LEFT HAND 1ST DOUBLER (FWD)		
		4	652.2613	FWD COVER LH	2	5 7 16
		3	652.2612	FWD COVER RH	2	5 7 16
	1	2	652.2611	FWD POD LH	2 3	5 7 15
1		1	652.2610	FWD POD RH	2 3	5 7 15
X			652.2602	FWD POD ASSY RH		
	X		652.2601	FWD POD ASSY LH		
2602	2601	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

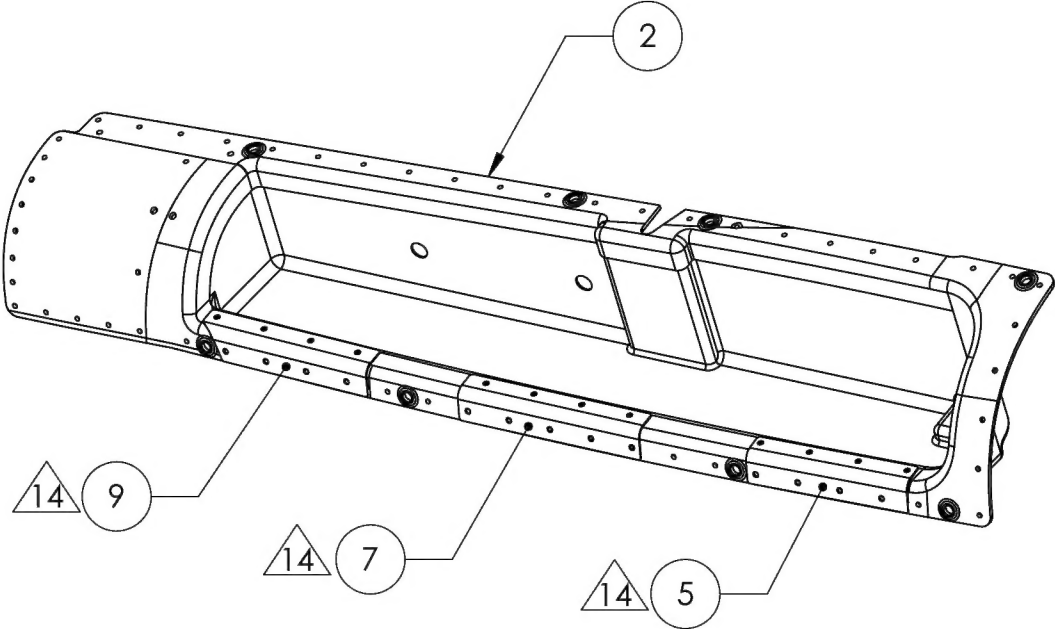
PR18

QTY		PARTS LIST			
NEXT ASSY (\$) 652.2400		ORIGINAL DATE (MO-DA-YR) 6-5-18 DRAWN BY E. ANDERSSON CHECKER P. BRAVO DRAWING APPROVAL P. BRAVO 6-5-18 CONTRACT No.			
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°			
		SIZE B	CAGE CODE 07MZ6	DWG. NO. 652.2600	REV. PR18
		SCALE NONE		SHEET 1 OF 11	

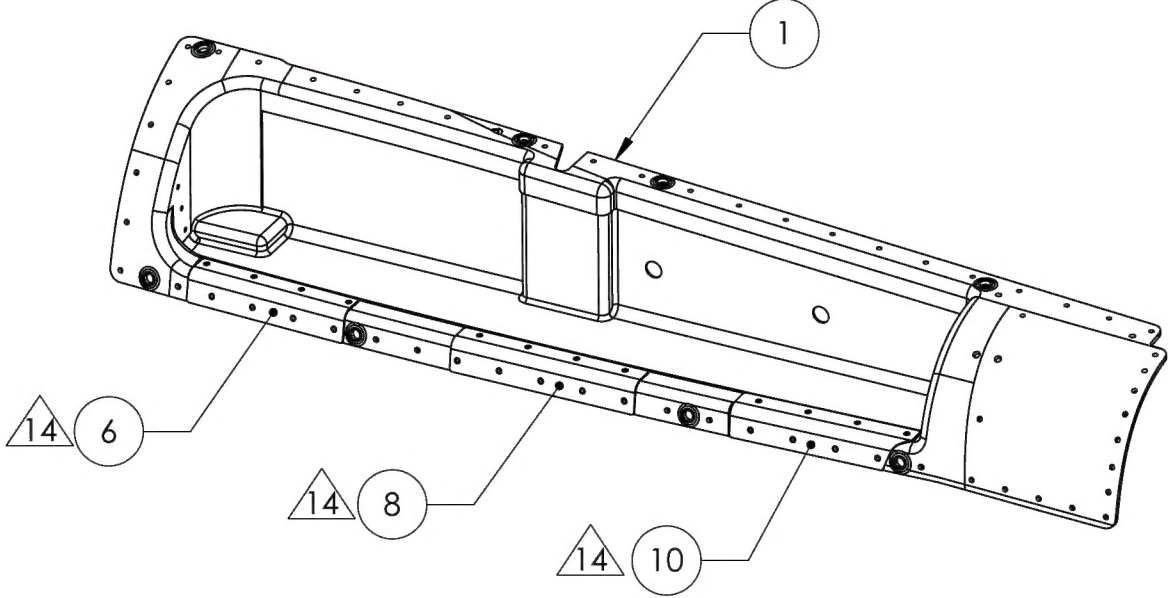
DART
AEROSPACE
APICAL INDUSTRIES, INC.
dba DART AEROSPACE
3030 ENTERPRISE CT.,
SUITE A
VISTA, CA. 92081
(760)-724-5300

AW169 FWD POD AND COVER

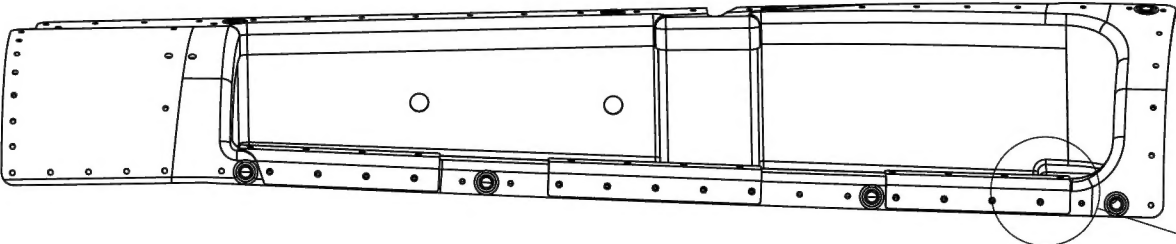
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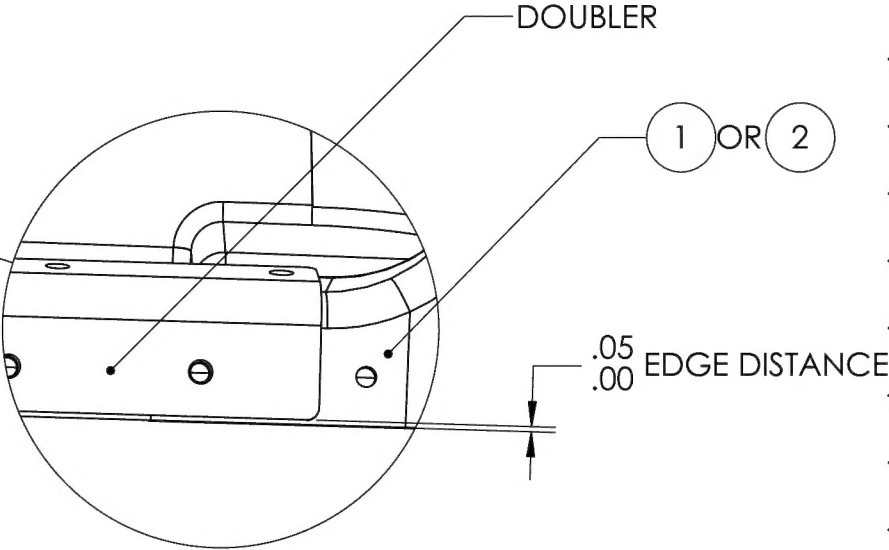
652.2601



652.2602



652.2601 SHOWN
652.2602 OPPOSITE



TYPICAL DOUBLER INSTALLATION

PR18

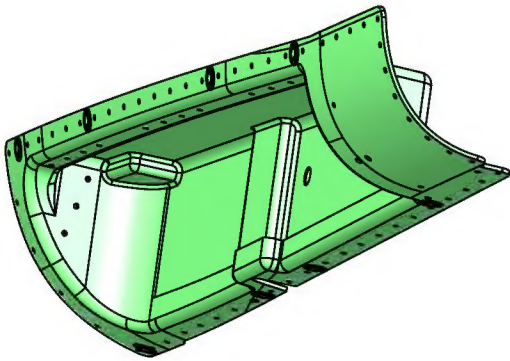
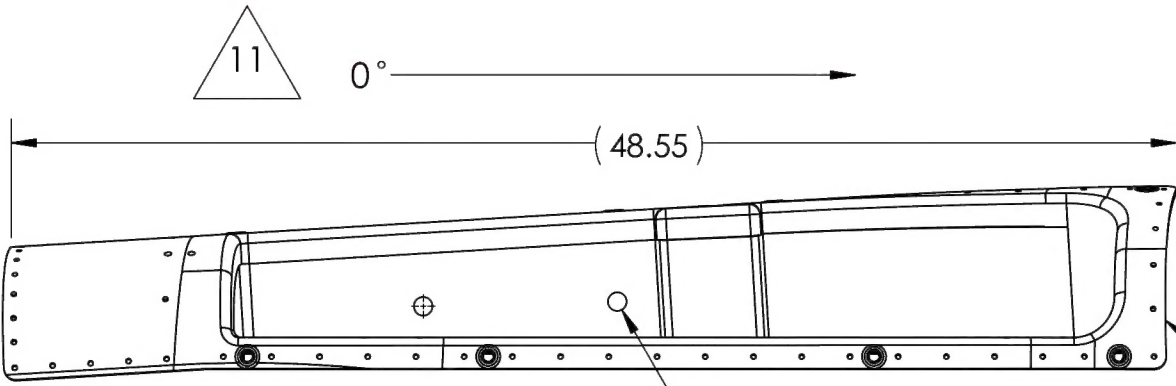
ORIGINAL DATE (MO-DA-YR) 6-5-18
DRAWN BY E. ANDERSSON
CHECKER P. BRAVO
DRAWING APPROVAL P. BRAVO 6-5-18
CONTRACT No.

DART AEROSPACE
APICAL INDUSTRIES, INC.
dba DART AEROSPACE
3030 ENTERPRISE CT., SUITE A
VISTA, CA. 92081
(760)-724-5300

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005
ANGLES ±.5°

AW169 FWD POD AND COVER
SIZE B CAGE CODE 07MZ6 DWG. NO. 652.2600 REV. PR18
SCALE NONE SHEET 2 OF 11

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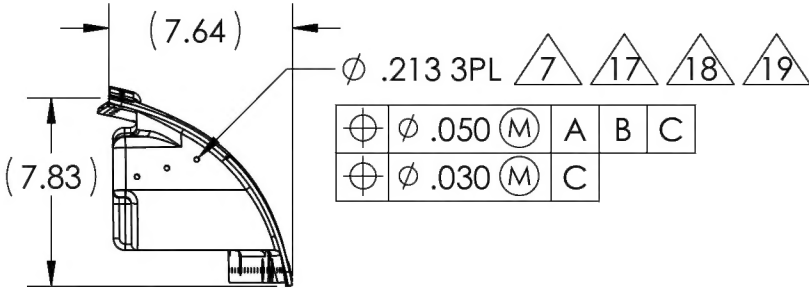


652.2611
652.2610 OPPOSITE

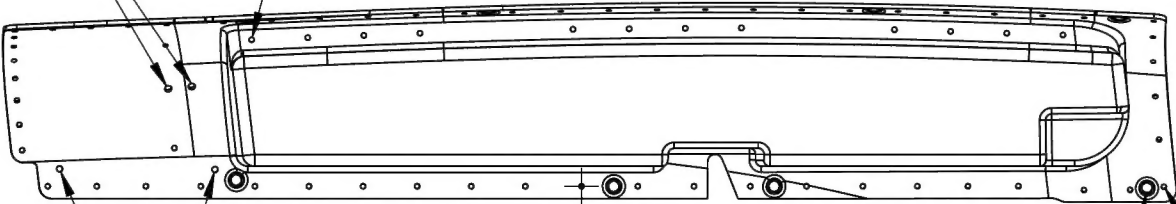
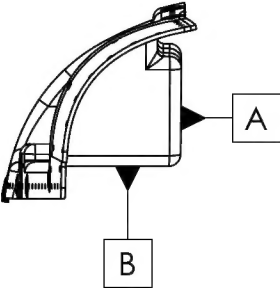
$\phi .766$ 2PL $\triangle 7 \triangle 17 \triangle 18 \triangle 20$
 $\oplus \phi .050$ (M) A B C

$\phi .295$ $\triangle 7 \triangle 17 \triangle 18 \triangle 19$
 $\oplus \phi .030$ (M) A B C

$.213$ 12PL $\triangle 7 \triangle 17 \triangle 18 \triangle 19$
 $\oplus \phi .050$ (M) A B C
 $\oplus \phi .030$ (M) A



$\phi .213$ 3PL $\triangle 7 \triangle 17 \triangle 18 \triangle 19$
 $\oplus \phi .050$ (M) A B C
 $\oplus \phi .030$ (M) C

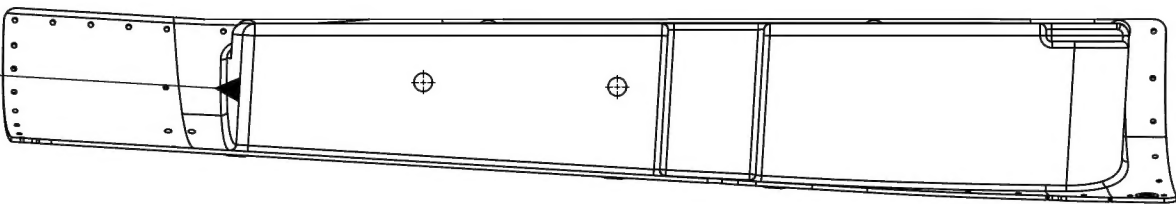


$\phi .250 \pm .025$
 $\oplus \phi .050$ (M) A B C

$\phi .453$ 8PL $\triangle 7 \triangle 17 \triangle 19$
 $\oplus \phi .015$ (M) A B C

$\phi .213$ 60PL $\triangle 7 \triangle 18 \triangle 19$
 $\oplus \phi .015$ (M) A B C

$\phi .250 \pm .025$
 $\oplus \phi .050$ (M) A B C




652.2611
652.2610 OPPOSITE

ORIGINAL DATE (MO-DA-YR) 6-5-18		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY E. ANDERSSON	CHECKER P. BRAVO		
DRAWING APPROVAL P. BRAVO 6-5-18		APICAL INDUSTRIES, INC. dba DART AEROSPACE	
CONTRACT No.		AW169 FWD POD AND COVER	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$		SIZE B	REV. PR18
		CAGE CODE 07MZ6	DWG. NO. 652.2600
		SCALE NONE	SHEET 3 OF 11

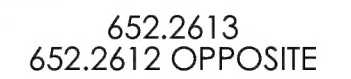
ORIGINAL DATE (MO-DA-YR)	6-5-18	 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300			
DRAWN BY	CHECKER				
E. ANDERSSON	P. BRAVO				
DRAWING APPROVAL P. BRAVO 6-5-18		APICAL INDUSTRIES, INC. dba DART AEROSPACE			
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		B	07MZ6	652.2600	PR18
		SHEET NONE			SHEET 4 OF 11

8

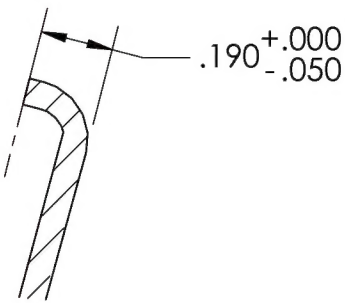
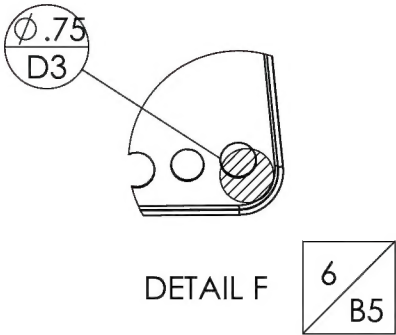
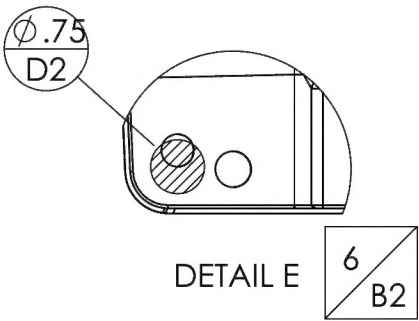


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DRAWN BY	CHECKER				
E. ANDERSSON	P. BRAVO				
DRAWING APPROVAL P. BRAVO					
6-5-18					
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.001 3 PLACE DECIMALS ±.005 ANGLES ± .5°		AW169 FWD POD AND COVER			
		SIZE	CAGE CODE	DWG. NO.	REV.
		B	07MZ6	652.2600	PR18
		SCALE NONE		SHEET	5 OF 11

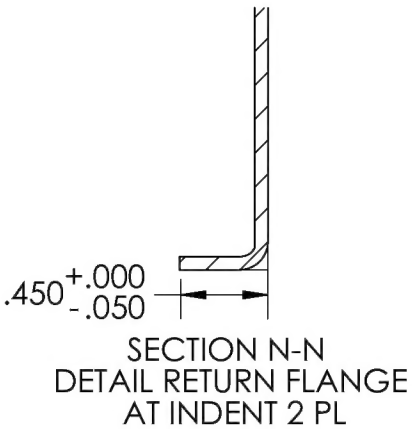
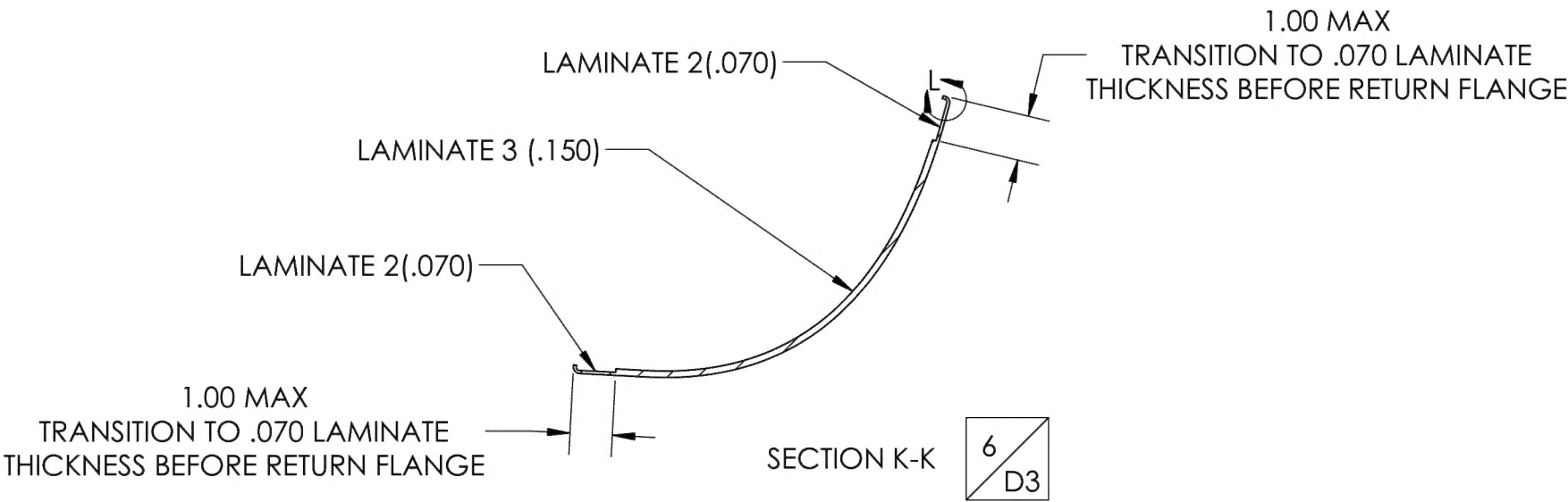
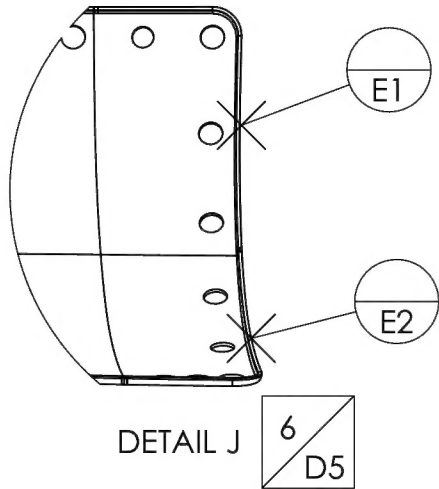
A horizontal number line with arrows at both ends. There are two major tick marks labeled '7' and '8'. A single tick mark is placed exactly halfway between 7 and 8.



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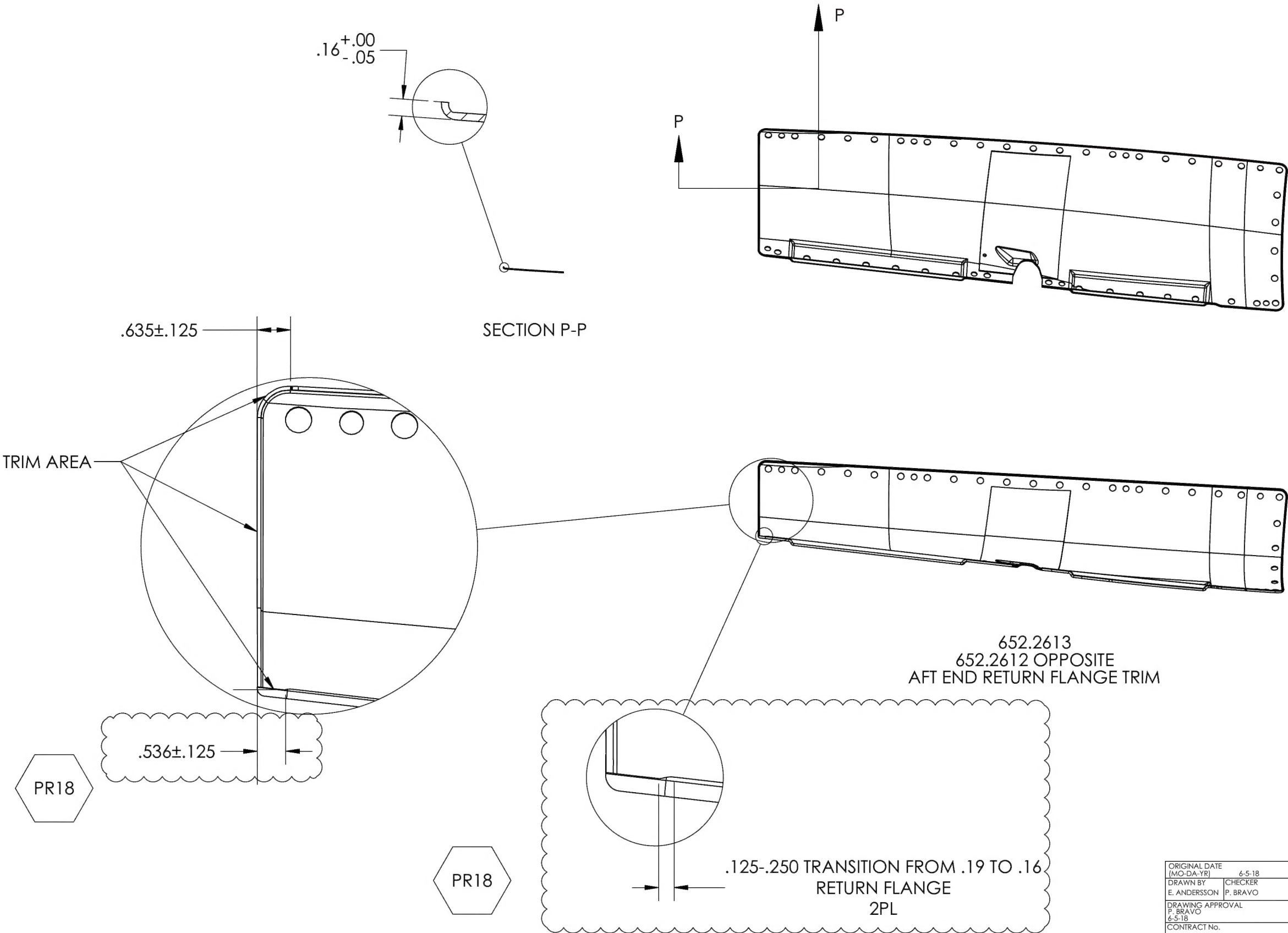


DETAIL L
TYPICAL COVER RETURN FLANGE
LENGTH UNLESS NOTED



ORIGINAL DATE (MO-DA-YR) 6-5-18		DART 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
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DRAWING APPROVAL P. BRAVO 6-5-18		APICAL INDUSTRIES, INC. dba DART AEROSPACE	
CONTRACT No.		AW169 FWD POD AND COVER	
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		DWG. NO. 652.2600	
		SCALE NONE	SHEET 7 OF 11

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E. ANDERSSON	P. BRAVO
DRAWING APPROVAL	
P. BRAVO	
6-5-18	
CONTRACT No.	




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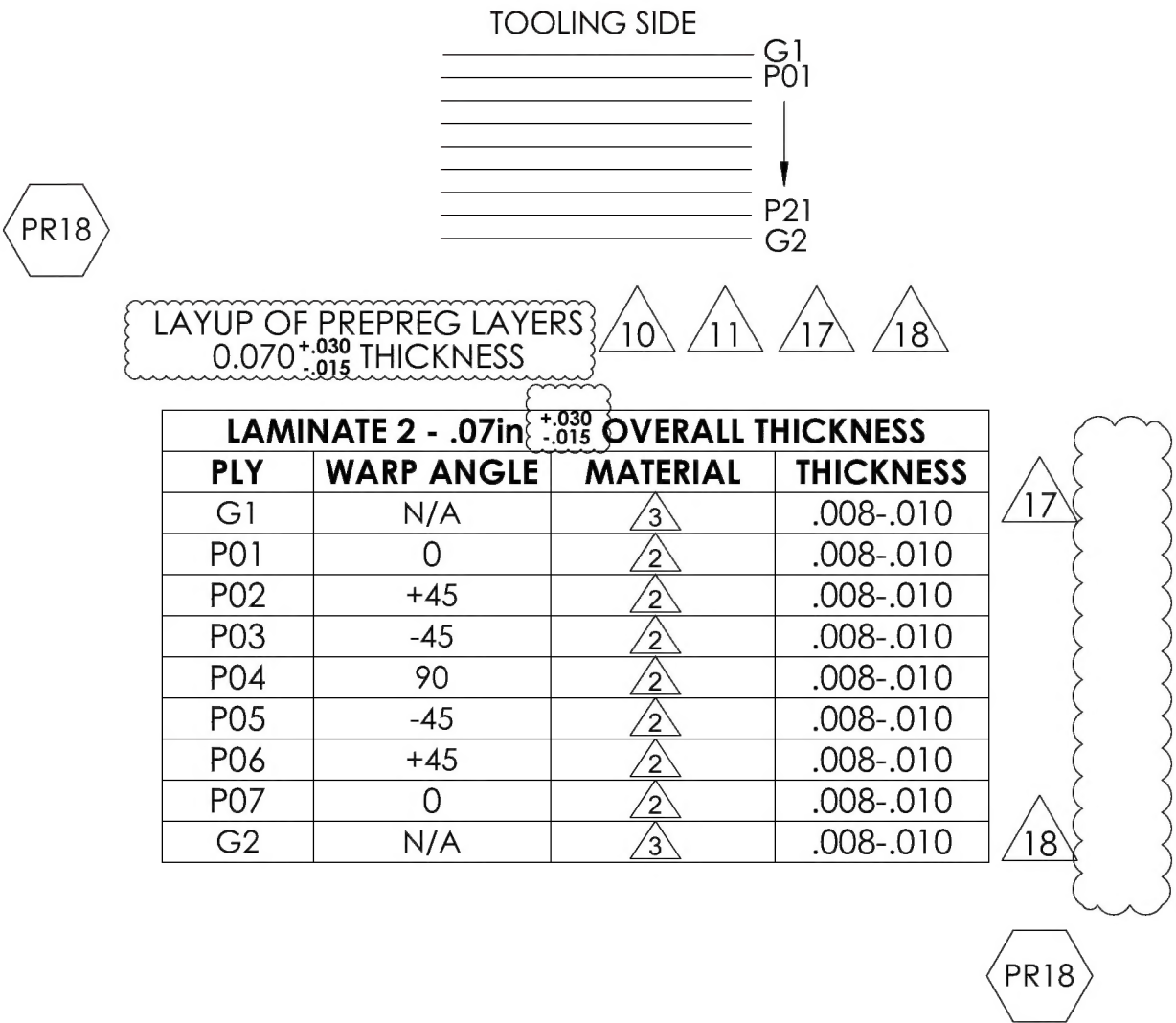
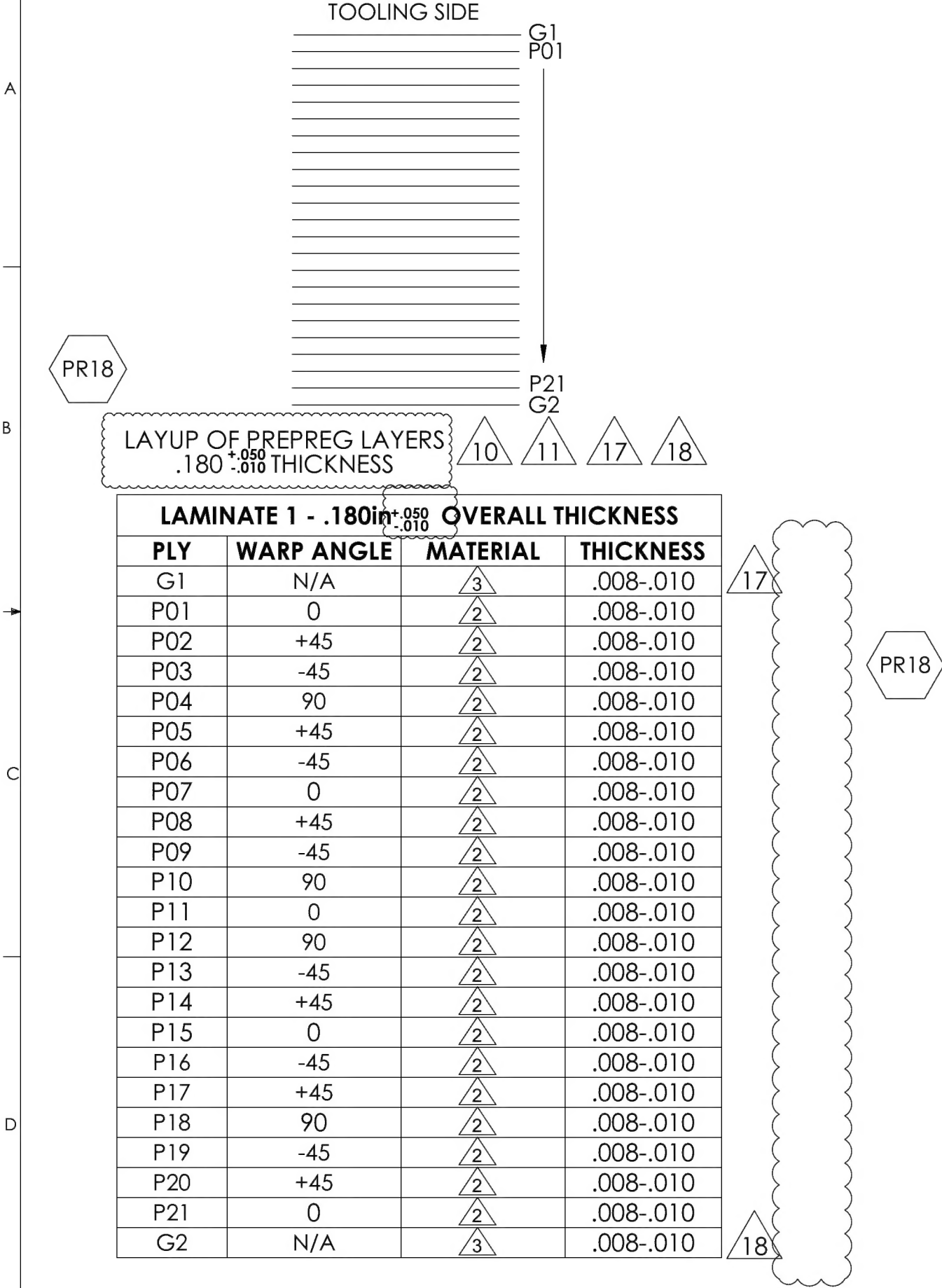
3030 ENTERPRISE CT.,
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SCALE	NONE	SHEET	8 OF 11	

CONCAVE SIDE OF 652.2613 SHOWN, 652.2612 OPPOSITE
LAYER MAP

ORIGINAL DATE (MO-DA-YR)		6-5-18		 DART AEROSPACE APICAL INDUSTRIES, INC. dba DART AEROSPACE	3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300		
DRAWN BY E. ANDERSSON		CHECKER P. BRAVO			DRAWING APPROVAL P. BRAVO 6-5-18		
CONTRACT NO.							
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SIZE	CAGE CODE	DWG. NO.			REV.		
B	07MZ6	652.2600			PR18		
SCALE NONE			SHEET 9 OF 11				

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A

B

C

D

TOOLING SIDE

G1
P01

P15
G2

PR18

LAYUP OF PREPREG LAYERS
.150 ^{+0.030}/_{-.030} THICKNESS

10

11

17

18

LAMINATE 3 - .150in ^{+0.030}/_{-.030} OVERALL THICKNESS

PLY	WARP ANGLE	MATERIAL	THICKNESS
G1	N/A	3	.008-.010
P01	0	2	.008-.010
P02	+45	2	.008-.010
P03	-45	2	.008-.010
P04	90	2	.008-.010
P05	+45	2	.008-.010
P06	-45	2	.008-.010
P07	0	2	.008-.010
P08	90	2	.008-.010
P09	0	2	.008-.010
P10	-45	2	.008-.010
P11	+45	2	.008-.010
P12	90	2	.008-.010
P13	-45	2	.008-.010
P14	+45	2	.008-.010
P15	0	2	.008-.010
G2	N/A	3	.008-.010

17

PR18

18

ORIGINAL DATE
(MO-DA-YR) 6-5-18
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DRAWING APPROVAL
P. BRAVO
6-5-18
CONTRACT No.

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AW169 FWD POD AND COVER

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ANGLES ± .5°

SIZE	CAGE CODE	DWG. NO.	REV.
B	07MZ6	652.2600	PR18
SCALE NONE			SHEET 11 OF 11